

# Franklin County / City of Frankfort

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## Stormwater Program



February 3, 2014

# Agenda

1. **What is a Stormwater Utility**
2. **Why Does Frankfort & Franklin County Need Stormwater Funding?**
3. **Municipal Separate Storm Sewer System (MS4) – KDOW Water Quality Permit**
4. **City of Frankfort Summary & Examples**
5. **Franklin County Summary & Examples**
6. **Rate Recommendations**

## **7. Path Forward**

- **Schedule - Handout**
- **Public Involvement, Education & Outreach**
- **Legal / Organization Development**
- **Billing Policies / Billing Database**
- **Incentives Program**
- **Billing System Development**
- **Customer Service training**
- **Send out Bills**

# What is a Stormwater Utility?

## Definition

A Stormwater Utility is a legally defensible Financing Option based on a comprehensive Financing Option Analysis that establishes a dedicated funding source with proceeds deposited into an Enterprise Fund that by law can only be spent on stormwater related projects such as water quality (MS4), drainage, flooding problems and certain CSO related projects.

## Mission Statement

***"The City of Frankfort and Franklin County Stormwater Utility Program strives to enhance the quality of life in the City of Frankfort and Franklin County by utilizing a watershed approach to meet and maintain EPA Water Quality permit requirements and responsibly address Drainage and Floodplain Management within available resources"***

# **Why Does Frankfort and Franklin County Need Stormwater Funding?**

- 1. To address the lack of dedicated funding for stormwater activities**
- 2. To address drainage and flooding problems**
- 3. To address Federal/State unfunded mandates**
  - **USEPA NPDES Phase II permit regulations**
  - **Failure to meet ever increasing regulations could result in large fines and/or criminal charges**
  - **CSO consent decree regulations will increase flooding problems**
- 4. To establish dedicated funding for stormwater program Capital Improvements Projects (CIP)**



# City Drainage Problems



# City of Frankfort Stormwater Program

## Capital Projects List

Project	Cost
• Indian Hills	\$ 250,000
• Hiawatha	\$150,000
• Benson Avenue	\$500,000
• Tierra Linda I&I Phase 1	\$350,000
• Tierra Linda Pipe Replacement	\$50,000
• Collins Lane I&I	\$950,000
• Collins Lane Extended	\$150,000
• Brookhaven	\$300,000
• Rolling Acres Phase 1	\$475,000
• Ridgeview Phase I&I	\$350,000
• Grandview	\$200,000
• Rolling Acres Phase 2	\$450,000
• Myrtle Avenue I&I	\$500,000
• Juniper Hills I&I	\$50,000
• St. Clair Storm /Sewer Separation	<u>\$1,000,000</u>
▶ 6 <b>TOTAL</b>	<b>\$5,725,000</b>



# County Drainage Problems

Mill Road





# Franklin County Stormwater Program Capital Projects List

Project	Cost
• Country Lane / Breckinridge Blvd.	\$100,000
• Heritage Subdivision	\$600,000
• I-64 Regional Detention Basin	\$260,000
• US 421 Regional Detention Basin	\$520,000
• Two Creeks	\$400,000
• Meadowbrook	\$30,000
• Governors Place	\$50,000
• CoolBrook Subdivision	\$50,000
• Evergreen Estates	\$50,000
• Willowcrest	\$50,000
• Matching Grant Fund pool	\$100,000
• Upper Cedar Run Branch Watershed	\$50,000
• Duckers Lake Dam	\$200,000
• Twilight Trail	<u>\$50,000</u>
<b>TOTAL</b>	<b>\$2,510,000</b>

# Municipal Separate Storm Sewer System (MS4) Kentucky Division of Water Stormwater Quality Permit

1. Public Education & Outreach
2. Public Participation/Involvement
3. Illicit Discharge Detection and Elimination
4. Construction Site Runoff Control
5. Post Construction Runoff Control
6. Pollution Prevention/Good Housekeeping



## **MS4 PERMIT IS:**

- **A plan for community water quality**
- **A plan for water education & Involvement**
- **A plan to map & maintain the storm system**
- **A plan for erosion from construction**
- **A plan for Green Infrastructure Development**
- **A plan to prevent pollution throughout the community through source control.**

# Compliance is a Serious Matter

## Non-compliance:

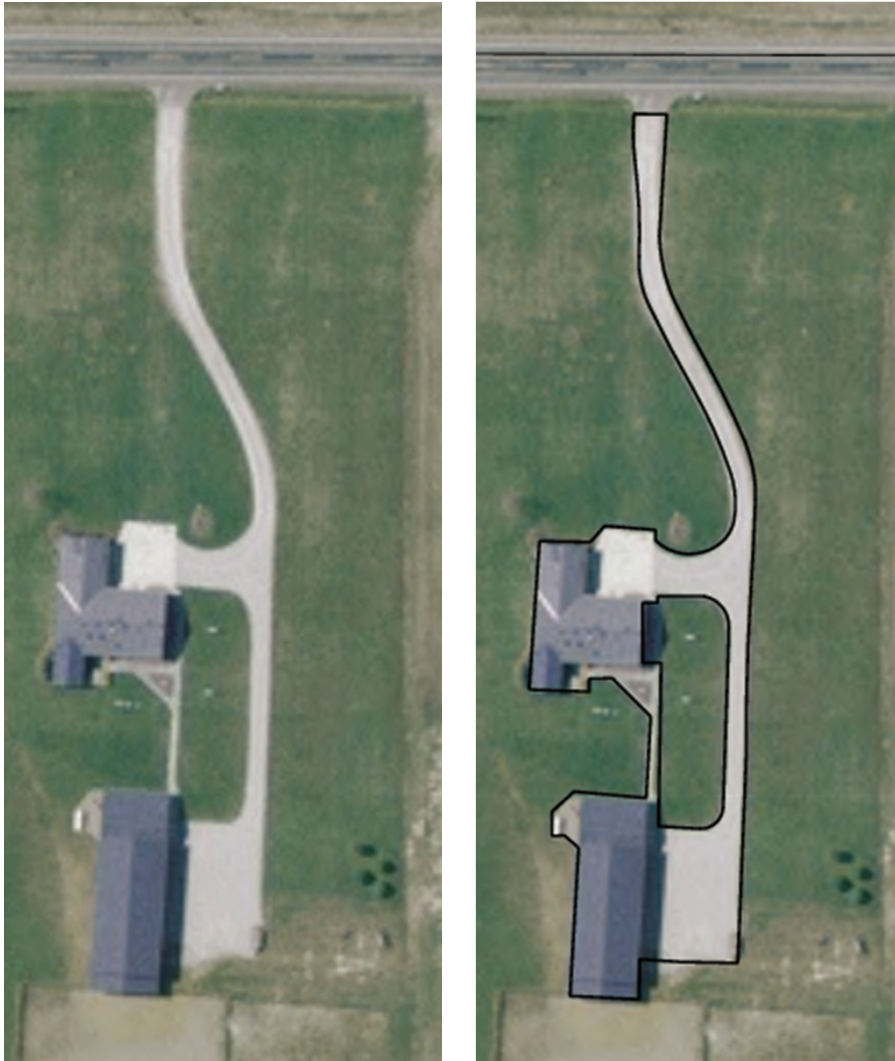
- **Administrative Order Penalty - up to \$125,000**
- **Civil Violations - up to \$25,000 per violation per day**
- **Jail terms for negligent or knowing violations, false statements, or knowingly endangering a person**



# What Are The Rate / Revenue Assumptions?

1. Basis is Impervious Area and Contribution to Runoff
2. Based on a Level of Service developed in conjunction with staff
3. Legally Defensible
4. An Equivalent Residential Unit (ERU) will be created from a sample of single family residential properties
5. Will be based on a random sample of residential properties
6. Non-residential properties measured for impervious area (hard surface, Roof, Parking Lot, Driveway) –
7. Example: 10,000 sq. feet of impervious surface area divided by 2,500 = 4 ERUs

# Residential Example



- **Residential**
- **1 Equivalent Residential Unit (ERU) flat rate billing**



# Non-Residential Example



## Non-residential

- Industrial
- Commercial
- Churches
- Schools
- Medical Facilities
- Government

# City of Frankfort Plan



City Storm Water Plan	Scenario 1	Scenario 2	Recommendation	Managed By	Split
Rate Plan	\$4.00	\$5.00	\$5.60		
NPDES Storm Water Permit & Water Quality	\$165,750	\$165,750	\$165,750	Co-Permittee	75%/25%
Drainage / Flood Protection & Maintenance	\$165,750	\$165,750	\$309,750	City/County	75%/25%
Debt Service / Capital	\$710,388	\$1,016,388	\$1,055,531	City/County	75%/25%
Billing System Costs	\$186,469	\$186,469	186,469	City/County	75%/25%
Total Annual Program Costs	\$1,228,356	\$1,534,356	\$1,717,500		

## Program Funding Using Taxes (City)

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	<u>Current</u>	<u>Proposed</u>
Occupational Tax Rate	1.95%	2.08%
Tax Revenue per year	\$17.8M	\$19.0M

	<u>Current</u>	<u>Proposed</u>
Property Tax Rate / \$100 Assess	20.9 / \$100	29.0 / \$100
Tax Revenue per year	\$3.1 M	\$4.3 M

# City of Frankfort

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## Impervious Area

## Examples



# Kentucky State University (city)

**Address: 400 E Main St. Frankfort, KY**

Impervious Area Measurement:

1,781,641.19 sq. ft.

$1,781,641.19 \div 3,800 \text{ (ERU)} = 469$

Rate = **\$4.00 per month per ERU**

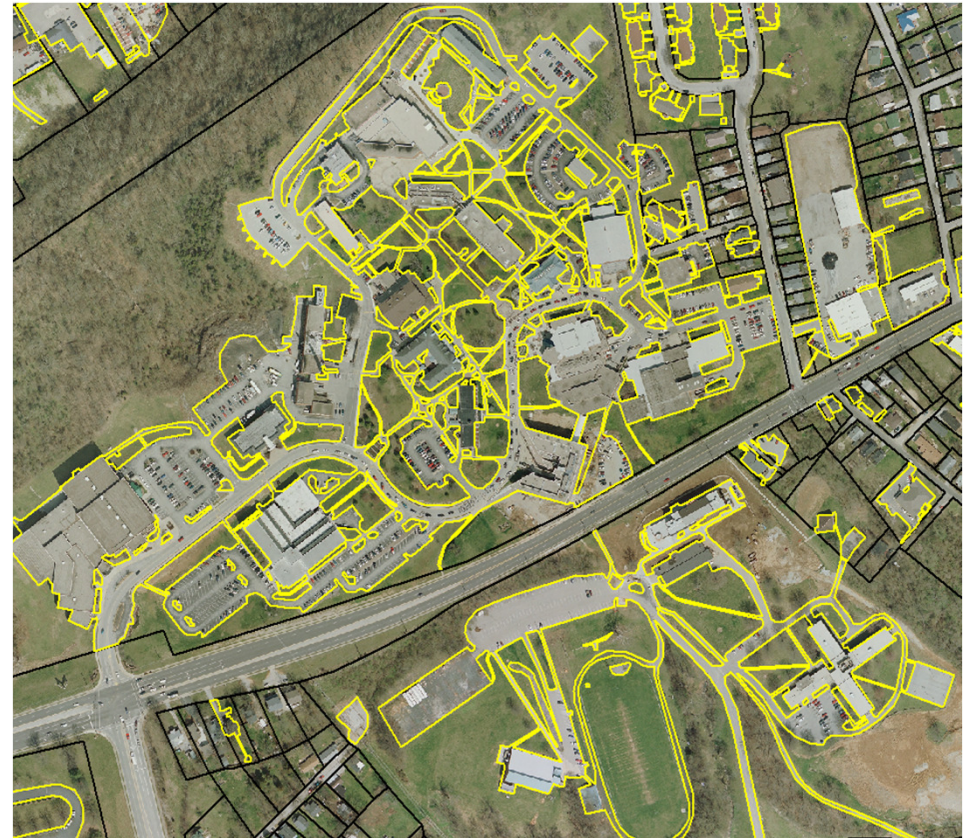
Charge =  $\$4.00 \times 469 = \text{\$1,876.00}$  monthly

**\$22,512.00 annually**

Rate = **\$5.00 per month per ERU**

Charge =  $\$5.00 \times 469 = \text{\$2,345.00}$  monthly

**\$28,140.00 annually**





# Walmart (city)

**Address: 301 Leornardwood Dr.  
Frankfort, KY**

Impervious Area Measurement:

715,949 sq. ft.

$715,949 \div 3,800 \text{ (ERU)} = 188$

Rate = **\$4.00** per month per ERU

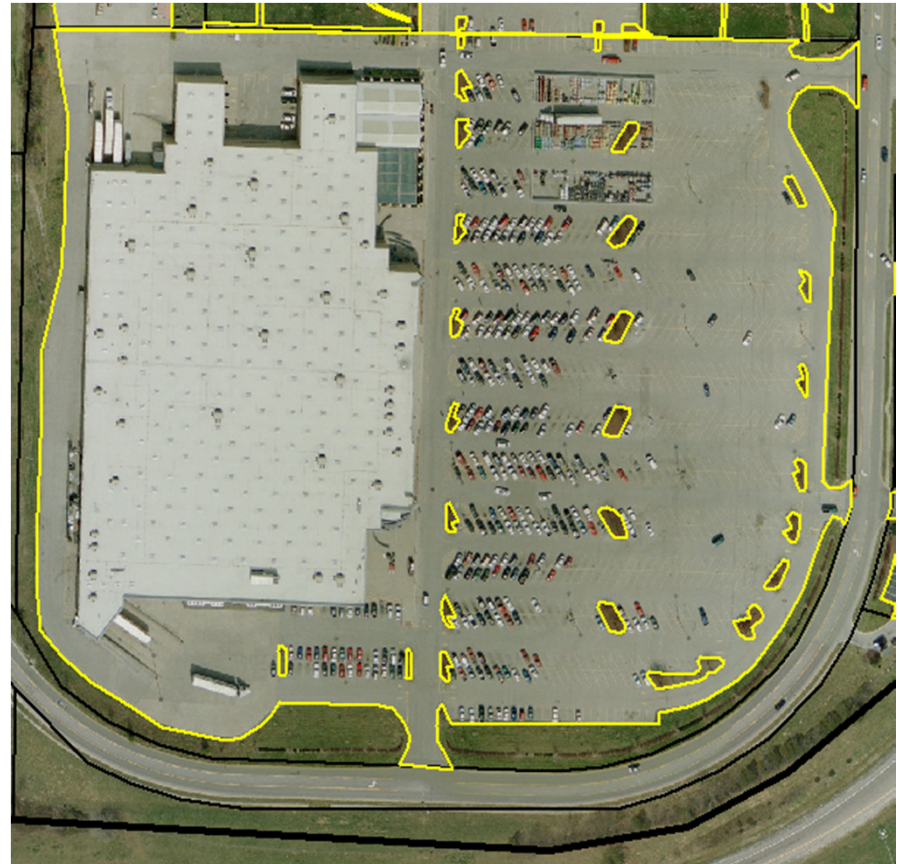
Charge =  $\$4.00 \times 188 = \textbf{\$752.00}$  monthly

**\$9,024.00** annually

Rate = **\$5.00** per month per ERU

Charge =  $\$5.00 \times 188 = \textbf{\$948.00}$  monthly

**\$11,280.00** annually



# Hope Lutheran Church (city)

**Address: 1251 Louisville Rd.  
Frankfort, KY**

Impervious Area Measurement:

35,309 sq. ft.

$35,309 \div 3,800 \text{ (ERU)} = 9$

Rate = **\$4.00** per month per ERU

Charge =  $\$4.00 \times 9 = \textbf{\$36.00 monthly}$   
**\$432.00 annually**

Rate = **\$5.00** per month per ERU

Charge =  $\$5.00 \times 9 = \textbf{\$45.00 monthly}$   
**\$540.00 annually**





# Hospital Corporation of America (city)

**Address: 299 Kings Daughters Drive**

**Frankfort, KY**

Impervious Area Measurement:

470,490 sq. ft.

$470,490 \div 3,800 \text{ (ERU)} = 124$

Rate = \$4.00 per month per ERU

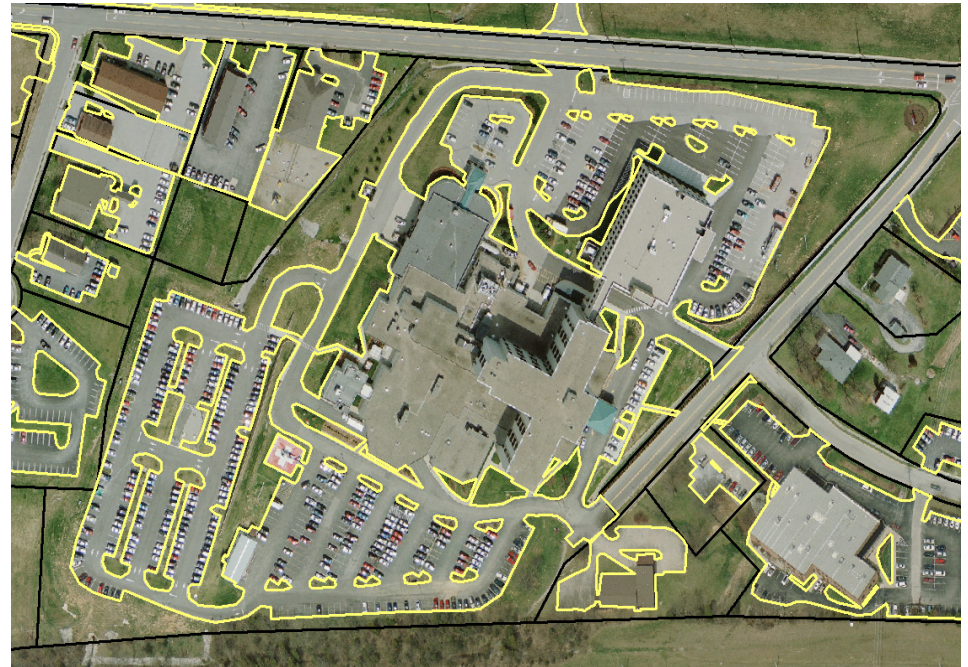
Charge = \$4.00 x 124 = **\$496.00 monthly**

**\$5,952.00 annually**

Rate = \$5.00 per month per ERU

Charge = \$5.00 x 124 = **\$620.00 monthly**

**\$7440.00 annually**





# Commonwealth of Kentucky (city)

**Address: 275 E. Main St.**

**Frankfort, KY**

Impervious Area Measurement:

1,111,870 sq. ft.

$1,111,870 \div 3,800 \text{ (ERU)} = 293$

Rate = **\$4.00** per month per ERU

Charge =  $\$4.00 \times 293 = \textbf{\$1,172.00}$  monthly

**\$14,064.00** annually

Rate = **\$5.00** per month per ERU

Charge =  $\$5.00 \times 293 = \textbf{\$1,465.00}$  monthly

**\$17,580.00** annually



# Commonwealth of Kentucky (City)

## Estimated 62 Properties inside City

Impervious Area Measurement:

$$14,978,263 \text{ sq. ft.} \div 3,800 \text{ (ERU)} = 3,942$$

Rate = **\$4.00** per month per ERU

Charge =  $\$4.00 \times 3,942 = \textbf{\$15,768.00}$  monthly  
**\$189,216.00** annually

Rate = **\$5.00** per month per ERU

Charge =  $\$5.00 \times 3,942 = \textbf{\$19,710.00}$  Monthly  
**\$236,520.00** annually

Commonwealth of  
Kentucky Overall Charges  
as a Percentage of Total  
Revenue of City

**Commonwealth 15.42%**

Tax Exempt **7%**

Total **22.42%** estimate

# Franklin County Plan



County Storm Water Plan	Scenario 1	Scenario 2	Recommendation	Managed By	Split
Rate Plan	\$4.00	\$5.00	\$5.60		
NPDES Storm Water Permit & Water Quality	\$55,250	\$55,250	\$55,250	Co-Permittee	75%/25%
Drainage / Flood Protection & Maintenance	\$55,250	\$55,250	\$103,250	City/County	75%/25%
Debt Service / Capital	\$288,129	404,129	\$425,344	City/County	75%/25%
Billing System Costs	\$62,156	\$62,156	\$62,156	City/County	75%/25%
Total Annual Program Costs	\$460,785	\$576,785	\$646,000		

# Franklin County

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## Impervious Area

## Examples





# Jeff Wyler Honda (county)

**Address: 1438 – 1440 Versailles Rd.  
Frankfort, KY**

Impervious Area Measurement:

149,020 sq. ft.

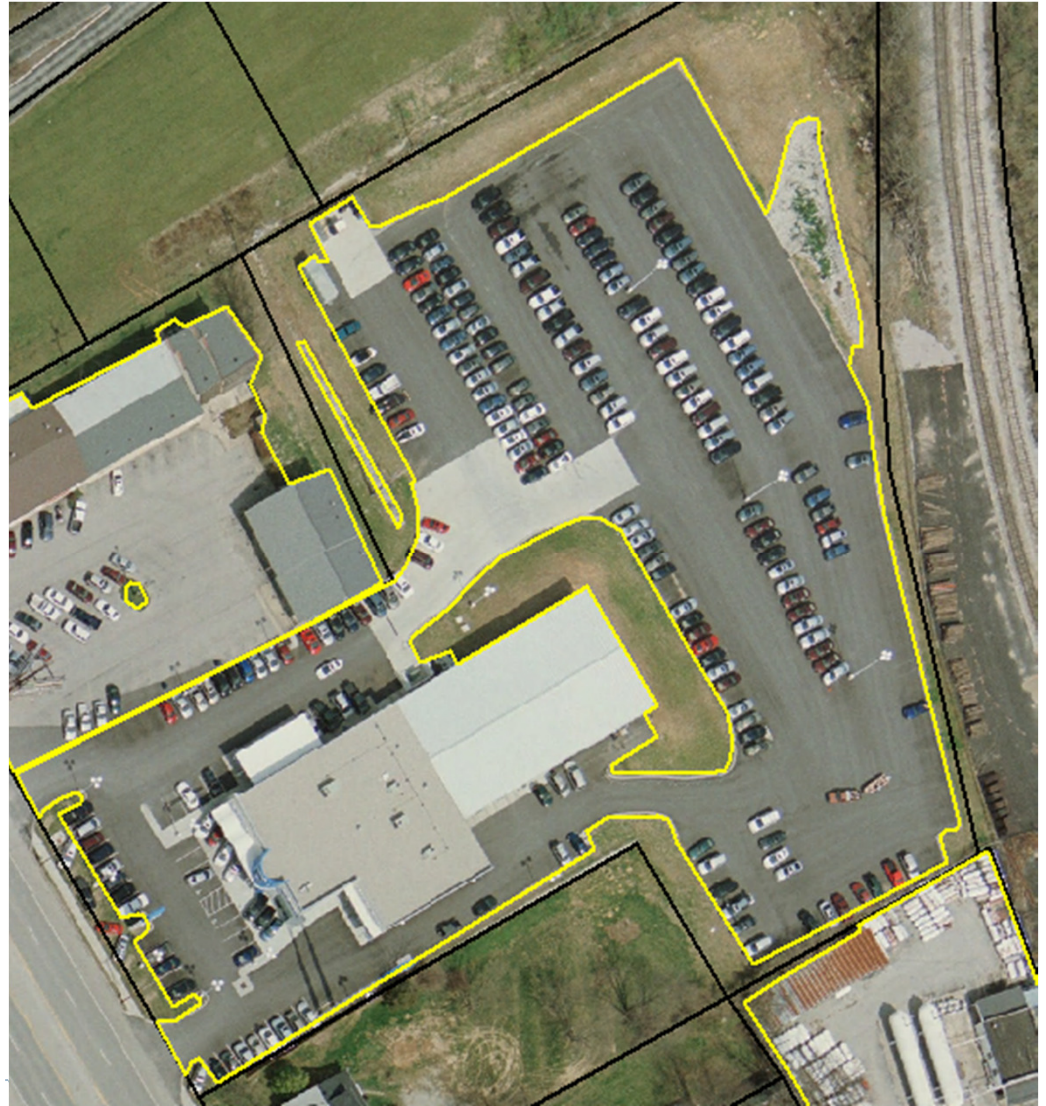
$149,020 \div 3,800 \text{ (ERU)} = 39$

Rate = **\$4.00** per month per ERU

Charge =  $\$4.00 \times 39 = \textbf{\$156.00 monthly}$   
**\$1,872.00 annually**

Rate = **\$5.00** per month per ERU

Charge =  $\$5.00 \times 39 = \textbf{\$195.00 monthly}$   
**\$2,340.00 annually**





# Buffalo Trace Distillery (County)

**Address: 113 Great Buffalo Trace**

**Frankfort, KY**

Impervious Area Measurement:

1,497,745 sq. ft.

$1,497,745 \div 3,800 \text{ (ERU)} = 394$

Rate = **\$4.00** per month per ERU

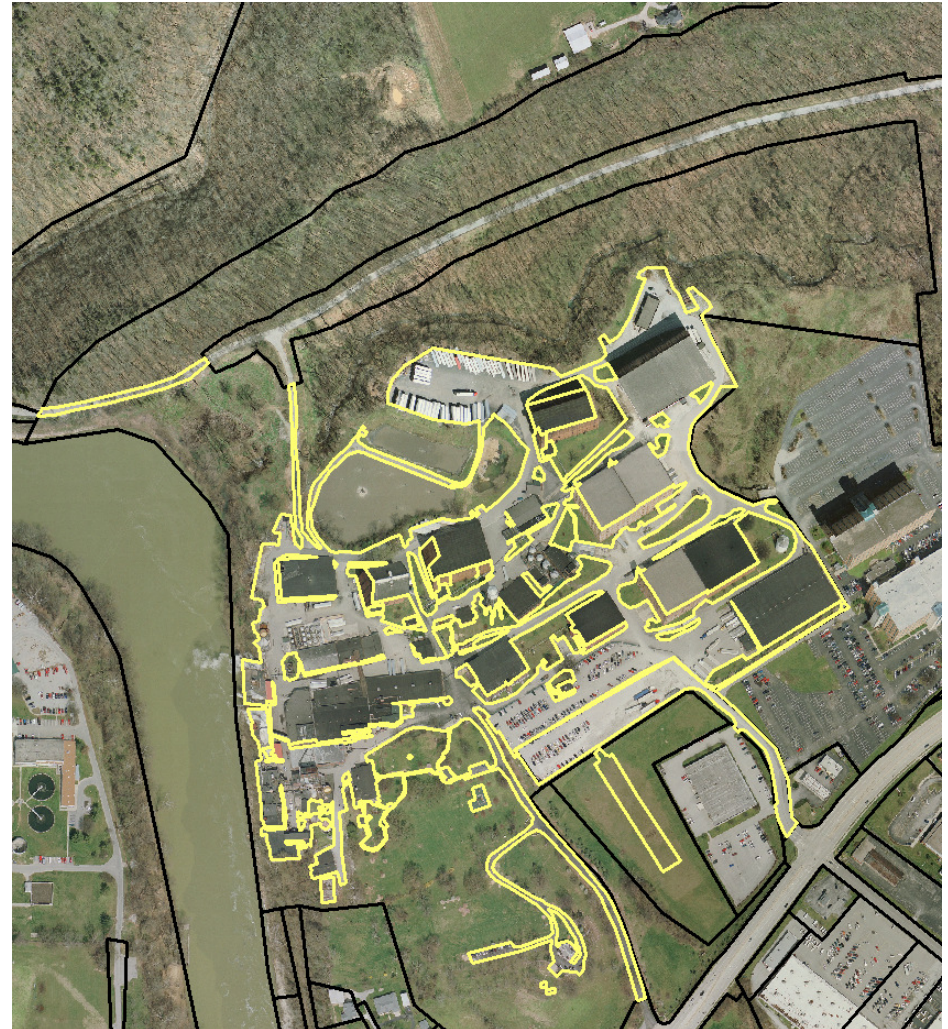
Charge =  $\$4.00 \times 394 = \textbf{\$1,576.00}$  monthly

**\$18,912.00 annually**

Rate = **\$5.00** per month per ERU

Charge =  $\$5.00 \times 394 = \textbf{\$1,970.00}$  monthly

**\$23,640.00 annually**



# Montaplast (county)

**Address: 2000 Hoover Blvd**

**Frankfort, KY**

Impervious Area Measurement:

1,154,494 sq. ft.

$1,154,494 \div 3,800 \text{ (ERU)} = 304$

Rate = **\$4.00** per month per ERU

Charge =  $\$4.00 \times 304 = \textbf{\$1,216.00 monthly}$   
**\$14,542.00 annually**

Rate = **\$5.00** per month per ERU

Charge =  $\$5.00 \times 304 = \textbf{\$1,520.00 monthly}$   
**\$18,240.00 annually**





# TOPY Corporation (county)

**Address: 980 Industrial Park Rd.**

**Frankfort, KY**

Impervious Area Measurement:

1,002,316 sq. ft.

$1,002,316 \div 3,800 \text{ (ERU)} = 264$

Rate = **\$4.00** per month per ERU

Charge =  $\$4.00 \times 264 = \textbf{\$1,056.00}$  monthly

**\$12,672.00 annually**

Rate = **\$5.00** per month per ERU

Charge =  $\$5.00 \times 264 = \textbf{\$1,320.00}$  monthly

**\$15,840.00 annually**





# Boone Plaza Church of Christ (county)

**Address: 1020 Holly Hill Dr.**

**Frankfort, KY**

Impervious Area Measurement:

52,426 sq. ft.

$52,426 \div 3,800 \text{ (ERU)} = 14$

Rate = **\$4.00** per month per ERU

Charge =  $\$4.00 \times 14 = \textbf{\$56.00}$  monthly

**\$672.00 annually**

Rate = **\$5.00** per month per ERU

Charge =  $\$5.00 \times 14 = \textbf{\$70.00}$  monthly

**\$840.00 annually**



# Frankfort Christian Academy Inc. (county)

**Address: 1349 Leestown Road**

**Frankfort, KY**

Impervious Area Measurement:

577,699 sq. ft.

$577,699 \div 3,800 \text{ (ERU)} = 152$

Rate = **\$4.00** per month per ERU

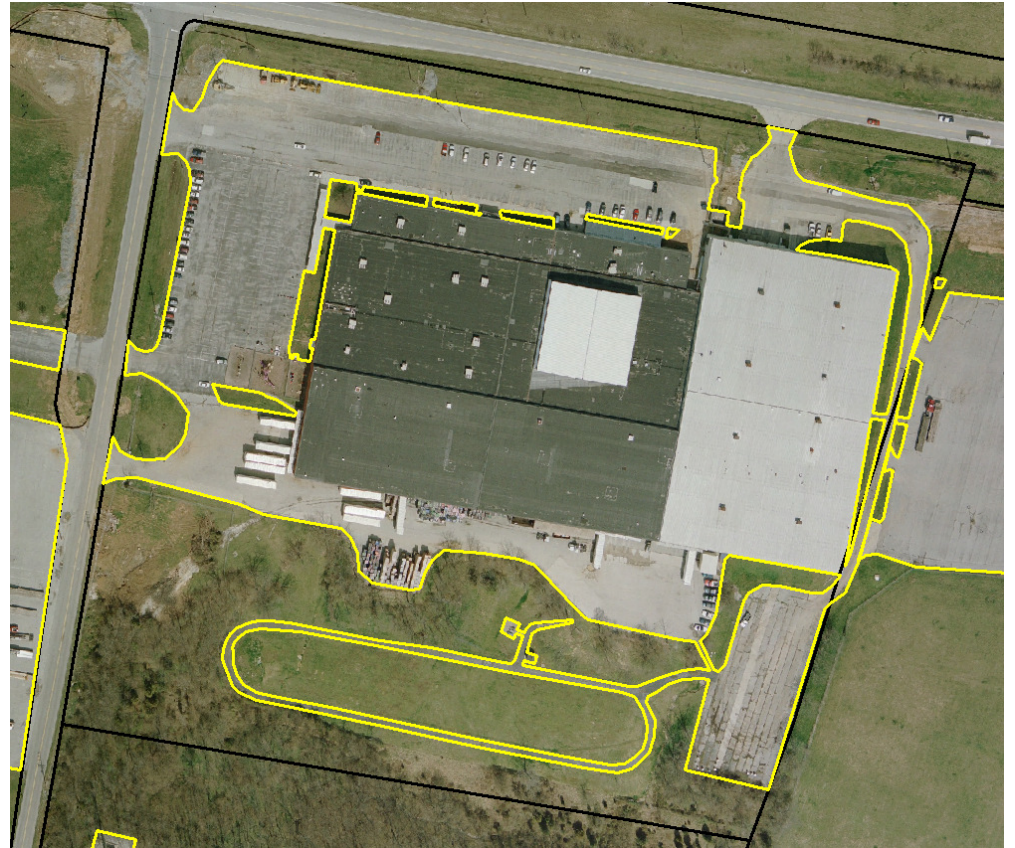
Charge =  $\$4.00 \times 152 = \textbf{\$608.00}$  monthly

**\$7,296.00** annually

Rate =  $\$5.00$  per month per ERU

Charge =  $\$5.00 \times 152 = \textbf{\$760.00}$  monthly

**\$9120.00** annually



# Commonwealth of Kentucky (County)

## Estimated 6 Properties inside County

Impervious Area Measurement:

$$1,075,655 \text{ sq. ft.} \div 3,800 \text{ (ERU)} = 283$$

Rate = **\$4.00** per month per ERU

Charge =  $\$4.00 \times 283 = \textbf{\$1,132.00}$  monthly

**\$13,584.00 annually**

Rate = **\$5.00** per month per ERU

Charge =  $\$5.00 \times 283 = \textbf{\$1,415.00}$  monthly

**\$16,980.00 annually**

Commonwealth of  
Kentucky Overall  
Charges as a Percentage  
of Total Revenue of  
County

**Commonwealth 2.94%**

## What are other Communities Paying for Storm Water Management?

Community	Rate*	Population	Revenues**
Louisville MSD, KY	\$6.46	700,000	\$31,000,000
Warren County, KY	\$6.00	31,500	\$350,000
SD1 (Northern KY)	\$4.68	340,000	\$10,000,000
Cold Spring, KY	\$4.68	6,000	\$275,000
Radcliff, KY	\$4.50	22,000	\$750,000
Lexington, KY	\$4.32	472,000	\$10,000,000
Oldham County, KY	\$3.43	40,000	\$1,500,000
Danville, KY	\$3.36	16,000	\$250,000
Hopkinsville, KY	\$3.00	22,000	\$250,000
Florence, KY	\$2.50	30,000	\$400,000

\*Rate information is based solely on internet research.

\*\*Revenues are estimated based on rates

# Western Kentucky University

## Storm Water Utility Survey:

- 1,310 Utilities Nationwide
- 2,970 sq ft Average ERU
- **\$4.20 /ERU Average Monthly Billing Rate**

Some things to keep in mind:

- Many of these utilities are water quality only
- Many of these utilities are older and have not had rate increases
- Many of these utilities were underfunded from the beginning

# Rate Recommendation

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## **Consultant (Business Plan Based)**

- **\$5.60** - provides the best across the board level of service, maintenance, reserve capital, & billing

**Or**

## **Staff Request**

- **\$5.00** – provides capital but no safety factor for billing

**Or**

- **\$4.00** – minimum program / less reserve capital



# Path Forward

## Storm water utility fees get 2nd look

Council to consider calls for lower monthly cost

BY TOM JEWELL  
BLADE STAFF WRITER

The possibility of lower fees than originally proposed with the establishment of a Toledo storm water facility will be getting more scrutiny in a city council committee.

Toledo council's environment, utilities, and public service committee heard opinions and asked questions about the utility proposal during a 2½-hour public hearing yesterday in council chambers.

The storm water utility and charges on property are being considered as a way of repairing and upgrading Toledo's antiquated storm sewers and drainage system, which are beset with problems.

The Toledo Area Chamber of Commerce water and sewer rate review committee endorsed the formation of the storm water agency if four conditions are met, including a lower fee than that in the proposed legislation before council.

The chamber proposal called for a monthly charge of \$2.26 for each residential unit and its equivalent in business property to be charged on the basis of the area of surfaces that do not absorb storm water, such as roofs and paved parking lots. That's \$1.56 less than the \$3.82 basic monthly fee initially proposed by the administration and recommended by the city's consultant.

It would be possible to fund the storm drainage operation with a \$3.06 fee, if some services were reduced from those offered through the higher rate, Robert Williams, commissioner of field services of the public utilities department, told the council panel.



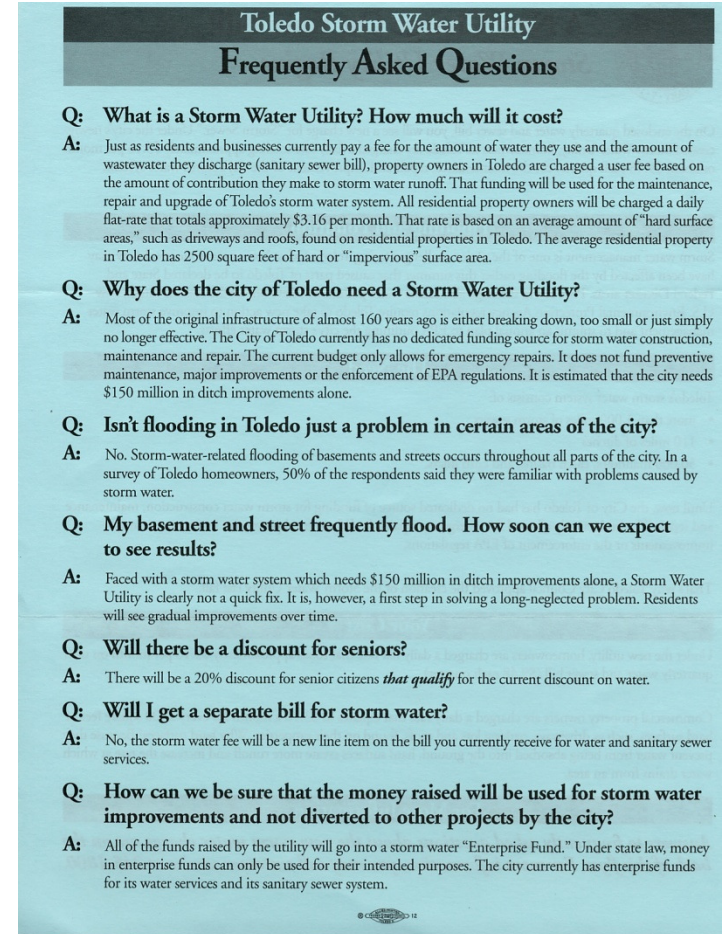
BLADE PHOTO BY DON SIMMONS

William Knight, left, of the Toledo Metropolitan Area Council of Governments, and Councilman Pete Gerken discuss storm water runoff near a sink hole on Detroit Avenue near Sherwood Drive.

1. Public Involvement, Education, & Outreach
2. Legal / Organization Development
3. Billing Policies / Billing Database
4. Incentives Program
5. Billing System Development
6. Customer Service training
7. Send out Bills

# Public Involvement, Education, & Outreach

- Create a Stakeholder Advisory Committee
- Presentations to community groups, business and industry groups, etc.
- Brochures & Factsheets
- Frequently Asked Questions
- Web Site
- Letters to the Top 100 Customers
- Meet with top 5 to 10 Customers (State of Kentucky, KSU, School System, etc.)
- Public Surveys





# Legal / Organization Development

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- **Review legal and organizational options**
- **Work with City and County Attorney to determine the best option**
- **Work with City and County Attorney to draft legal / organizational**
- **Obtain Elected Official approval of organizational legal documents**



# Billing System Development

## What Needs to be Accomplished?

- Determine utilities to be a part of the Billing System
- Determine Billing Mechanism
- Develop Billing Policy Papers
- Determine Final ERU
- Complete measurement of impervious areas
- Reconcile Databases
- Prepare Master Account File
- Run billing test
- Train Customer Service
- Prepare Bills and send to customers



# Stormwater Incentives Program

- A program to reduce the impact of impervious area on the quantity and quality of storm water drainage
- To offer nonresidential property owners an opportunity to recoup a portion of the their storm water fee
- Reduces the cost of service that otherwise would need to be performed by the city/county

- Business community partnering
- Public involvement
- EPA NPDES storm water permit
- Reduce the storm water impact.



# Stormwater Incentives Program

- Credits Advisory Committee (CAC)
- Members from:
  - business
  - industry
  - education
  - engineering
  - government
  - health care
- Facilitated sessions to address storm water credit issues
- Develop evaluation criteria
- Select credit mechanisms (i.e. Detention, Water Quality Pond, Pavers, Bio-retention etc.)



# Stormwater Utility Advantages

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- **Everybody Pays**
- **Less subject to swings in the economy - Reduces the dependency on the General Fund**
- **Enterprise Fund – protected Revenue Fund**
- **Fee Based Revenue**
- **Cost based on customer contributions to system need.**
- **Recommended by Regulatory Agencies**
- **Encourages Incentives for individuals to manage runoff from their property.**

# Stormwater Utility Advantages

- **Steady dedicated funding stream that allows Staff to develop an annual budget.**
- **Same model as Water and Wastewater**
- **Over 3,000 communities all across the country have utilized this type of funding option**
- **Establishes a Legally Defensible Dedicated Funding Source to address Stormwater Projects**
- **Organizes the current piecemeal stormwater program into an well managed program similar to the sewer department**
- **Allows for Grant Matching Funds to bring maximize program revenues**
- **Allows Funding for Drainage, Water Quality(MS4) and CSO projects**



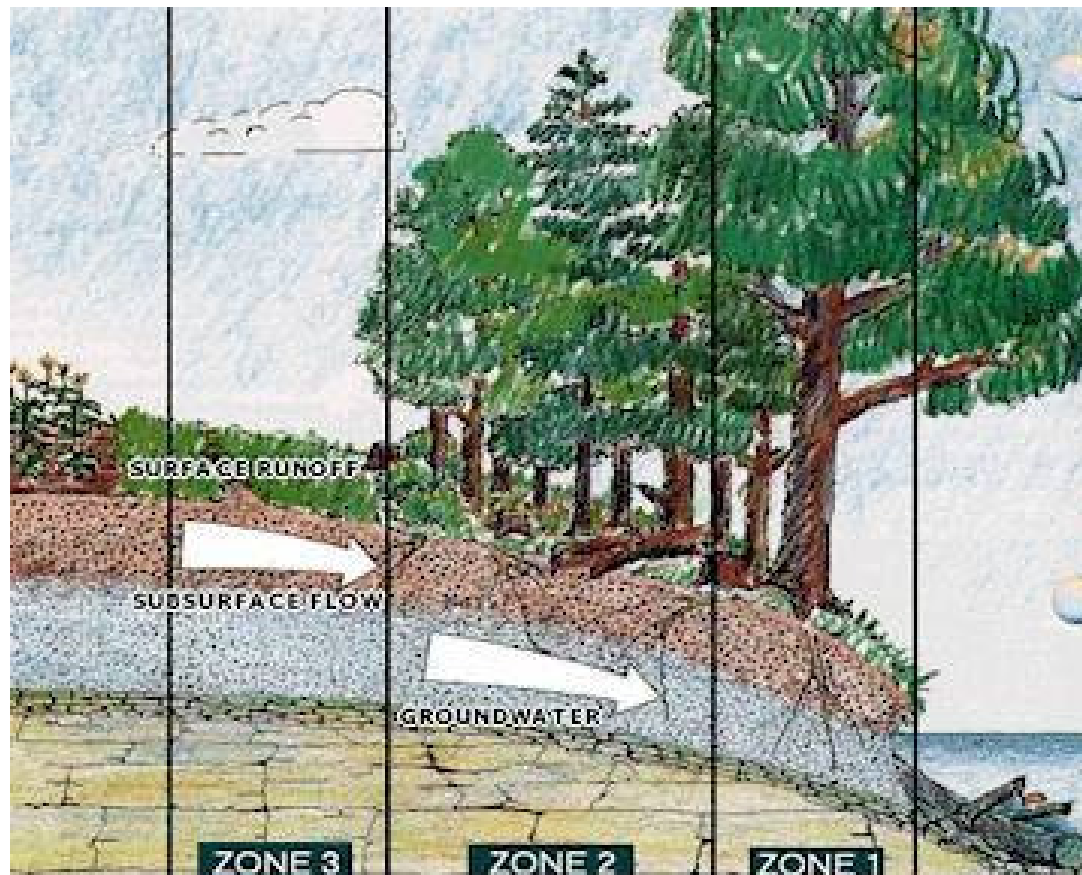
# Stormwater Utility Disadvantages

- Charging Non-Profits
- Large Impervious Property
- Expensive to establish
- All single family units pay the same regardless of size
- Controversial to establish
- Costly to administer
- Public may accuse the City and County of creating another bureaucracy

# Schedule

Project Tasks	March-14	April-14	May-14	June-14	July-14	August-14	September-14	October-14	November-14	December-14	January-15
Task 1 - Perform Rate Structure Analysis											
Task 2 - Complete the Measuring of the Impervious Areas											
Task 3 - Develop Billing Policy Papers											
Task 4 - Develop Master Account File (Database Merge/Manipulation)											
Task 5 - Develop ERU for City and County											
Task 6 - Finalize Legal/Organizational Program											
Task 7 - Perform Public Involvement/Education Program Activities											
Task 8 - Create and Hold 4 SWAC Meetings											
Task 9 - Prepare and Hold STAC Meetings											
Task 10 - Provide Legal Advice (Ordinance and Resolution Development)											
Task 11 - Development Credit Program											
Task 12 - Develop Customer Appeals Process											
Task 13 - Hold 2 Public Hearings for new Stormwater Rate											
Task 14 - Elected Official Final Presentation											
Task 15 - Executive Summary Final Report											

# Questions



Sketch of a typical riparian forest buffer (Source: Chesapeake Bay Program, 2000)